

of the interparietal bone, which is about an inch deep, broken on each side, has a vertical median ridge, and at its base shows a fractured fragment of the supraoccipital, which is excavated on its anterior border by a vertical concavity like that seen in figured *Dicynodonts* in the British Museum, which display the cerebral aspect of the occipital plate. The bone is obviously narrow; at its sides are the thin walls of the brain-case; those walls meet inferiorly in the median line, so as to rest upon the interorbital septum which has been described; and it extends backward to the supraoccipital and interparietal bones, but not much in advance of the anterior angle of the bevelled concave temporal region, where the postfrontal rests on the parietal. The parietal bones form the upper covering of this brain-case.

All the allied skulls which I have seen from the Upper Karroo rocks are remarkable for side to side compression, while the *Ptychognathus* type widens superiorly to the flat interorbital table on the top of the head.

XXVIII.—*On Indigenous Muridæ in the West Indies; with the Description of a new Mexican Oryzomys.* By OLD-FIELD THOMAS.

IN Mr. F. M. Chapman's interesting paper on the origin of West-Indian bird-life * it is assumed that there are no indigenous terrestrial mammals in the Greater Antilles other than *Solenodon*, *Plagiodontia*, and *Capromys*, or in the Lesser Antilles than *Dasyprocta cristata* (to which should be added *Megalomys pilorides*).

For more than half a century, however, there has been in the British Museum a rat from Jamaica belonging to the genus *Oryzomys*, and closely allied to the Central American *O. Couesi*, while another indigenous species has now turned up in a member of the same genus from St. Vincent, collected by Mr. H. H. Smith about six years ago, but hitherto overlooked.

In view of the fact that, as is evidenced by their rarity, these indigenous Murines are rapidly disappearing before the competition of the introduced European rats and mice, these specimens are of much interest as furnishing valuable evidence about the character of the original West-Indian fauna.

* "Notes on Birds and Mammals observed near Trinidad, Cuba, with Remarks on the Origin of West-Indian Bird-life," Bull. Am. Mus. N. H. iv. p. 279 (1892).

Both the specimens appear to represent new species, although closely allied to continental forms.

The first may be called

Oryzomys antillarum, sp. n.

Size about as in *O. Couesi*. General colour dull rufous, rather (though not prominently) richer on the rump and greyer on the head; black lining of back not prominently marked. Belly dull yellowish, not sharply defined, the hairs slaty grey basally. No blackish ring round eyes. Ears small, their visible external surface blackish and internal yellowish, but in neither case very strongly contrasting with the general colour. Hands and feet dull whitish above. Tail apparently about as long as the head and body, very thinly haired, almost naked, pale brownish above, rather lighter below.

Skull strongly built, with well-defined evenly divergent supraorbital ridges. Nasals well surpassing frontal processes of premaxillæ posteriorly. Interparietal small and narrow. Palatal foramina narrow, rather compressed, not widely open. Back of palate extending behind $m.^3$ a distance about equal to the diameter of that tooth.

Dimensions of the type (measured in skin):—

Head and body (apparently stretched) 130 millim.; tail (imperfect at tip) 130; hind foot, without claws (moistened), 28; ear (moistened) 13.

Skull: basal length (c.) 26, basilar length (c.) 24; greatest breadth 17; nasals 12.6×4.1 ; interorbital breadth 5.2; breadth of brain-case on squamosals 12.9; interparietal 2.8×8.5 ; palate length from henselion 14; diastema 8.3; palatal foramina 5.7×2.1 ; length of upper molar series 4.6.

Hab. Jamaica.

Type B. M. no. 45. 10. 25. 48. Collected by Mr. P. H. Gosse.

The evident relationship of this Jamaican *Oryzomys* to the *O. Couesi* group is distinctly confirmatory of Mr. Chapman's view that the Greater Antilles received their inhabitants from Central America (probably Honduras and Nicaragua) *viâ* the Pedro Cays and Jamaica, rather than from the North (Florida) or the South (Trinidad), in neither of which regions is any such *Oryzomys* known.

Gosse's "*Mus saccharivorus*"*, the "Cane-piece Rat," is clearly not this species, and is most probably *Mus decumanus*.

Besides Mr. Gosse's specimen in the British Museum there

* 'Naturalist in Jamaica,' p. 444.

are also two skins, presumably of *O. antillarum*, in the United States National Museum, as appears from Dr. Coues's remarks in his Monograph of N.-American Muridæ*. They were captured about 1877.

The fact that no specimen of this or any other indigenous Murine has been taken in Jamaica for the last twenty years, while *Mus rattus* and *decumanus* have devastated the island, to be persecuted in their turn by the introduced Indian Mongoose, renders it highly probable that this animal has been altogether exterminated there, like the Carib inhabitants of the same region. But in the larger islands—Cuba and Hayti—it is very likely that it (or a closely allied species) still persists in the little known interior, where disturbances and misrule have as yet prevented any scientific exploration.

The second species (that from St. Vincent) may be termed

Oryzomys victus, sp. n.

Size and proportions about as in the larger members of the *O. longicaudatus* group. General colour dark rufous, but evidently affected by the spirit in which the specimen has been preserved. Under surface buffy white, the bases of the hairs slate-colour. Eyes without darker rims. Ears short, the anterior part of their backs brown, not strikingly contrasting with the general colour of the head. Hands and feet thinly clothed with fine silvery hairs. Tail almost naked, brown above, slightly paler below. Mammæ 2—2=8.

Skull with the general shape of that of South-American *O. longicaudatus*, the brain-case being similarly lengthened as compared with the broadened brain-case of the Central-American *O. melanotis* and its allies. Compared with a Rio Janeiro example it is larger, more rounded, the supraorbital edges less sharply square, but the parietal ridges thicker and better developed. Molars larger and stouter, palate ending only just behind the back of *m*.³.

Dimensions of the type (an adult female, measured in spirit):—

Head and body 96 millim.; tail 121; hind foot without claws 25, with claws 26·7; ear 14.

Skull: basilar length 21·4; basal length 23·8; greatest breadth 15·1; nasals 11·2 × 3·4; interorbital breadth 4·5; interparietal 3·2 × 10; palate length from henselion 12·3; diastema 7·8; palatal foramina 5·4 × 1·8; length of upper molar series 4·1.

Hab. St. Vincent, Lesser Antilles.

* Mon. N. Am. Rod. p. 116 (footnote), 1877.

Type B. M. no. 97. 12. 26. 1. Collected by Mr. H. H. Smith, and presented by Mr. F. DuCane Godman.

Owing to our ignorance of South-American Muridæ it is difficult to say to what species this mouse is most nearly allied; but, as already stated, it seems related to Southern rather than Central American forms, and is therefore again confirmatory of the view supported by Mr. Chapman as to the essential difference in the origins of the faunas of the Lesser and Greater Antilles.

The specimen was marked by Mr. Smith as a "Forest Rat."

Oryzomys Chapmani, sp. n.

Oryzomys melanotis, Allen and Chapman, Bull. Am. Mus. N. H. ix. p. 205 (1897).

The British Museum has acquired half the interesting collection obtained by Mr. F. M. Chapman at Jalapa, Mexico, and worked out by Allen and Chapman. Among them there is a series of the *Oryzomys* termed by them *O. melanotis*, Thos., and at the request of Mr. Chapman I have made a careful comparison of them with the type of that species, obtained by the late Dr. Buller in Jalisco.

The two forms are undoubtedly very closely allied, but are not identical, and I would therefore propose to name the Jalapa form in honour of its discoverer Mr. F. M. Chapman, to whom science is indebted not only for much valuable material collected by him, but also for many interesting papers on his own and other people's specimens.

Size markedly smaller than in *O. melanotis*, as shown especially in the skull. General colour much darker, the black lining on the back finer and closer and the light colour less bright. Lower surface more strongly suffused with slate. Ears (unfortunately for the name) even blacker than in *O. melanotis*, the visible portion of the inner as well as of the outer surface deep shining black. Wrists and ankles more or less suffused with smoky brown. Tail as in the allied species.

Skull very similar in shape to that of *O. melanotis*, but much smaller; nasals narrower behind. Brain-case narrower (width between most distant points of parietal ridges 10·8 to 11·0 millim., as against 12·1). Palatal foramina much shorter and extending nearly to the level of the front of *m*.¹. Posterior narial fossa shorter. Bullæ smaller.

Dimensions of the type (an adult female measured by Mr. Chapman in the flesh):—

Head and body 105 millim.; tail 116; hind foot, with claws, 24; ear 19.

Skull: basal length 21·6; basilar length 19·8; greatest breadth 13·8; nasals 10·4 × 3·2; interorbital breadth 4·3; breadth of brain-case on squamosals 11·4; interparietal 2·8 × 8·9; palate length from henselion 11·5; diastema 11·7; palatal foramina 4·5 × 2; length of upper molar series 3·7.

Additional measurements and averages are given by Allen and Chapman (*l. c.*).

Hab. Jalapa, Mexico.

Type B. M. no. 97. 9. 30. Original number 1059. Collected by Mr. F. M. Chapman, March 31, 1897.

BIBLIOGRAPHICAL NOTICE.

Land and Freshwater Mollusca of India, including South Arabia, Baluchistan, Afghanistan, Kashmir, Nepal, Burmah, Pegu, Tenasserim, Malay Peninsula, Ceylon, and other Islands of the Indian Ocean. Vol. II., Part VII. By Lieut.-Colonel H. H. GODWIN-AUSTEN, F.R.S., F.G.S., F.Z.S., &c.

VOLUME I. of this work, consisting of 266 pages and 62 plates, was commenced in 1882 and completed in 1888. The present Part VII. (the first of Vol. II.) was issued last October, and contains 45 pages of text accompanied by 7 plates.

As indicated by its title, this work is mainly devoted to the subject of Indian malacology, but occasionally we are startled by the sudden appearance of a page or two dealing with molluscs from very remote parts of the world. In the first volume, for example, the British *Geomalacus maculosus* is discussed, a new species of *Helicarion* from Australia, and a new *Diplommatina* from Trinidad, W.I., are described, and a new subgenus of *Helicarion* (*Africarion*) is founded for the reception of certain African forms. In the part before us a new subgenus of *Cyclophorus* (*Natalia* *) is described, for the reception of the well-known *C. Wuhlbergi* of South Africa. It is as well to call attention to this introduction of extraneous matter, so that writers engaged upon the fauna of Greenland, Timbuctoo, or any other part of the world may be on the alert.

About 17 of the 45 pages are reprints of the author's descriptions which have appeared in the 'Proceedings of the Zoological Society' or are quotations from the works of other writers. It is very useful to have these descriptions reproduced, as they are accompanied by figures, not having been illustrated previously. The genera treated of are *Alyceus*, *Diplommatina* †, *Cyclophorus* (subgenera *Natalia* and *Cyclohelix*), *Otopoma*, and *Pupina*. Only two new species are described, and they belong to the last-named genus. The anatomical part of this work is very slight, being restricted to an account of the position of "the male organ" in the new subgenus *Natalia*

* Used by Gray in 1840 in Echinoderma.

† *D. concinna*, p. 15. This name was preoccupied by H. Adams twenty-five years ago.